

# The western population of Short-clawed Lark *Certhilauda chuana* in South Africa revisited

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La population occidentale de l'Alouette à ongles courts *Certhilauda chuana* en Afrique du Sud réévaluée. L'Alouette à ongles courts *Certhilauda chuana*, espèce endémique de l'Afrique australe, est restreinte au sud-est du Botswana et les provinces North-west, Northern Cape et Limpopo de l'Afrique du Sud. Les auteurs rapportent les résultats d'un inventaire de l'aire de distribution de l'Alouette à ongles courts dans les provinces North-west et Northern Cape, Afrique du Sud. Cette zone représente la limite est et sud de la population occidentale de l'espèce. *C. chuana* n'a été notée que dans deux des 29 carrés dans lesquels elle avait été notée pendant le Projet de l'Atlas des Oiseaux de l'Afrique australe (SABAP). Des observations non publiées indiquent que l'espèce pourrait aussi être présente dans six carrés supplémentaires, quoique à des densités très basses. Cette réduction apparente de l'aire de distribution peut être attribuée à plusieurs facteurs, parmi lesquels l'agriculture, l'expansion urbaine, les exigences biologiques et écologiques de l'espèce, et des erreurs d'identification pendant la période SABAP. Le déplacement récent de l'espèce de la catégorie de conservation 'Quasi menacé' à celle de 'Préoccupation mineure' devrait être revue d'urgence.

Short-clawed Lark *Certhilauda chuana* is a southern African endemic that occurs in two isolated populations, a large western and a smaller eastern population. The western population is widespread in the arid savannas of south-east Botswana and the North West, Northern Cape and north-western Free State provinces of South Africa (Herremans 1997); it occupies a maximum area of c.54,000 km<sup>2</sup> (Barnes 2000). The eastern population is largely restricted to the Polokwane Plateau, Limpopo province, South Africa, and has a maximum range of c.10,650 km<sup>2</sup> (Barnes 2000). The species is variously listed in Red Data publications as 'indeterminate' (Brooke 1984), 'rare' (Siegfried *et al.* 1976), Near Threatened (Collar *et al.* 1994, Barnes 2000) and Least Concern (BirdLife International 2004). Listing as a Red Data species is primarily due to its relatively small global range (Barnes 2000). The stronghold lies in the rural areas of south-eastern Botswana, where over 10,000 pairs might occur (Herremans 1993).

As part of an ongoing research project into the biology, ecology and conservation of the Short-clawed Lark, funded by the University of Limpopo, we surveyed the range of the western population in South Africa. During the Southern African Bird Atlas Project (SABAP) period, this population was recorded in 76 grid squares, of which 29 (38%) squares are either wholly or partially in South Africa (see Herremans 1997). We surveyed all 29 of these. Two surveys were conduct-

ed during the 2004/2005 breeding season: the first in September–October 2004 (11 days) and the second in March 2005 (ten days). Survey results were supplemented by information obtained through interviews with residents, local birdwatchers, bird guides and ornithologists in the region.

Within each grid square, we searched for suitable habitat, i.e. areas that are sparsely vegetated with short grass and scattered small shrubs and trees, especially *Acacia tortilis* (Fig. 1). Once suitable habitat was located, we travelled at 30–40 km/h, stopping regularly to search for and/or listen for the birds. We also surveyed suitable habitat in grid squares where the species was not recorded during the SABAP.

## Results

Despite intensive search efforts, we found the species in only two of the grid squares, 2525DA and 2624BC, in which it was recorded during the SABAP. Interviews with various observers familiar with the species suggested that Short-clawed Larks might also be present in six squares where the species was not recorded during the SABAP: 2624DD and 2724BB (L. van Nieuwenhuizen pers. comm.), 2824CB (W. Sinclair pers. comm.), 2824CC and 2824CD (M. Anderson & W. Pike pers. comm.), and 2824DC (W. Sinclair pers. comm.). In these squares, except 2525DA, the species appears to occur at extremely low densities or to be seasonal, nomadic or erratic in occur-

rence. In all squares, except 2525DA, in which they were recorded, the number of territorial males observed was 1–8 individuals. In contrast to these low densities, we estimate that there are c.150 territorial males in grid 2525DA. These birds are almost entirely restricted to Botsalano Nature Reserve.

## Discussion

The findings of our survey have important implications for the conservation of the Short-clawed Lark in South Africa. Not only does the western population appear to have experienced a dramatic range contraction in the last decade, but the species now also occurs at extremely low densities in all but one of the squares (2525DA), wherein it was only common in and immediately adjacent to the western boundary of Botsalano Nature Reserve. We failed to find any Short-clawed Larks further than 500 m from the reserve boundary. Botsalano Nature Reserve is close to the Pitsane area of Botswana, reportedly one of the species' strongholds (Herremans 1997). We surveyed the rural areas adjacent to Pitsane on the South African side of the border but failed to find any Short-clawed Larks. However, this apparent range reduction and possible decline in numbers in South Africa may be an artefact of the present survey. The area surveyed was restricted to the southern and easternmost limits of the western range, and may therefore represent marginal habitat which could explain the apparent erratic occurrence of the larks in these areas.

Several squares, notably 2327CA, 2426CA, 2426CB, 2426CC, 2426CD and 2526AB, held no suitable habitat: they were characterised by broadleaf woodland and/or areas with severe bush encroachment (Fig. 2). According to Brooke (1984), Short-clawed Lark is associated with *Tarchonanthus* savanna in South Africa. Despite intensive searching, we did not find the species in this vegetation type. Given the structure of this habitat, we believe it is unlikely to be suitable for Short-clawed Larks. Additional research is recommended to determine the precise habitat preferences of the species.

The species' presence in the south of its range appears to be very erratic. Most records are from the summer, i.e. the breeding season, when males are more vocal and their display-flights facilitate detection. However, even in the non-breeding sea-

son Short-clawed Larks can be found in suitable habitat, as they are resident and occupy territories year-round, giving their characteristic territorial song all year (Herremans & Herremans 1992, Engelbrecht 2005). Their seasonal and erratic appearance is therefore puzzling and requires further study. The species' preference for open savanna with short-grass cover, as usually attained under continuous grazing pressure, may occasionally inhibit its ability to occupy a given area on a permanent basis. If, on the one hand, the heavily grazed areas it prefers are not managed properly, this may result in overgrazing and/or bush-encroachment, rendering the habitat unsuitable. On the other hand, if grazing and fire is withheld from suitable habitat, the grass will rapidly reach a climax state and the vegetation will become too dense, which will also make habitat unsuitable. This could explain why Short-clawed Larks are only common in the Botsalano and Polokwane nature reserves, where grazing pressure is continuous and properly managed fire programmes exist.

In light of the above, we have identified the following probable contributors to the species' apparent range contraction in South Africa.

### *Commercial agriculture*

The natural vegetation in many of the squares has been altered or destroyed for crop farming, mainly maize and sunflower, leaving only small, isolated patches of natural habitat. The dynamic habitats associated with commercial crop farming are unsuitable for continuous inhabitation by Short-clawed Larks, hence their absence from these areas. The use of pesticides may also affect them negatively.

### *Pastures*

Vast areas within the species' range are cleared, ploughed and planted with pasture grasses, including *Digitaria*, *Chloris*, *Cenchrus* and various *Eragrostis* cultivars (Fig. 3). This form of monoculture undoubtedly has a detrimental impact on the species.

### *Subsistence agriculture*

The main areas with traditional agricultural practices, e.g. dry-land crop farming and grazing by livestock, are found in squares 2426CA, 2426CC, 2525BB, 2525CD, 2525DA, 2525DC, 2526AB, 2625AD and 2625CB. These are generally characterised by over-grazed areas with many stunted





Figure 1. The preferred habitat of Short-clawed Lark *Certhilauda chuana*, Botsalano Nature Reserve, North West province, 10 March 2006 (Joe Grosel)

L'habitat préféré de l'Alouette à ongles courts *Certhilauda chuana*, Réserve naturelle de Botsalano, province North West, 10 mars 2006 (Joe Grosel)



Figure 2. Severe bush encroachment characterises many squares towards Gaborone. Supingstad, North West Province, 11 March 2005 (Derek Engelbrecht)

Une importante 'mise en valeur' agricole du bush caractérise beaucoup de carrés vers Gaborone. Supingstad, province North West, 11 mars 2005 (Derek Engelbrecht)

bushes and very few large shrubs or trees. Herremans & Herremans (1992) described recently fallow land that is heavily grazed by livestock with coppiced thorn trees as the typical habitat of the species in south-east Botswana. Despite the species' relative abundance in and immediately adjacent to Botsalano Nature Reserve (2525DA), we failed to find it in areas where traditional rural agricultural practices were practised. Although we did not cross the border into Botswana, a concerted search took place adjacent to Pitsane, where the habitat matches that described above and Short-clawed Lark is reportedly fairly common. Although we found numerous other lark and pipit species, e.g. Rufous-naped Lark *Mirafra africana*, Sabota Lark *Calendulauda*



Figure 3. Pastures (foreground), crop production (left back) and development (horizon), amongst others, threaten the preferred habitat (behind first row of trees) and ultimately the survival of the western population of the Short-clawed Lark *Certhilauda chuana* in South Africa. Wolmaransstad, North West province, 10 March 2005 (Derek Engelbrecht)

Paturages (en avant-plan), cultures (à gauche en arrière-plan) et expansion urbaine (à l'horizon) menacent l'habitat préféré de l'Alouette à ongles courts *Certhilauda chuana* (derrière la première rangée d'arbres) en Afrique du Sud. Wolmaransstad, province North West, 10 mars 2005 (Derek Engelbrecht)

*sabota*, Spike-heeled Lark *Chersomanes albofasciata*, Long-billed Pipit *Anthus similis*, Buffy Pipit *A. vaalensis* and African Pipit *A. cinnamomeus*, we failed to find any Short-clawed Larks.

Bush encroachment due to poor land management was evident in several squares, being particularly severe in 2426CA, 2426CB, 2426CC, 2426CD, 2526AB and 2525BB, and it is difficult to comprehend that these areas could have presented suitable habitat for the species, even during the SABAP period (Fig. 2).

### Development

Although the western population of Short-clawed Lark occurs in relatively remote areas, changes in land-use within its range may affect the species detrimentally. Mining and urban expansion, e.g. around Mafekeng, Kimberley, Madibogo and Setlagole, have destroyed large areas of suitable habitat.

### Misidentification

Unless calling or displaying, Short-clawed Lark is not easy to identify, having until recently been erroneously described in the literature, as noted by

Herremans (1997). It is most easily confused with Long-billed Lark *Certhilauda curvirostris*, Sabota Lark, Rufous-naped Lark, Long-billed Pipit and Buffy Pipit. Although SABAP records were carefully checked (Herremans 1997), we feel that a number may nevertheless have reflected misidentifications. Our view is supported by R. Nuttall (pers. comm.) and B. Colahan (pers. comm.) who question the validity of Short-clawed Lark records from Free State. Apart from an unconfirmed sighting of a Short-clawed Lark in Sandveld Nature Reserve in March 2000 (R. Nuttall pers. comm.), there have been, as far as we can establish, no records of the species in Free State Province since the SABAP.

### *Short-clawed Lark's biology and ecology*

The species' apparently narrow biological and ecological requirements could also explain its erratic appearance or its absence from apparently suitable habitat in certain parts of its range. As mentioned above, Short-clawed Larks prefer open areas of short grass interspersed with small shrubs or trees. When the area they occupy becomes unsuitable due to either overgrazing and concomitant bush-encroachment, or insufficient grazing pressure resulting in excessively lush vegetation, they will vacate it, leading to birds being encountered in squares where they were not recorded during the SABAP. The species' poor dispersal and colonising abilities, on the other hand, may explain why apparently suitable habitat remains vacant for years.

### Conclusion

With a new South African Bird Atlas project in the pipeline, we urge the coordinators to carefully vet all Short-clawed Lark records to ensure an accurate representation of the species' present distribution. The possible misidentification of birds during the SABAP period may have led to a 'false sense of security'. A more intensive survey, including the species' range in Botswana, is necessary to determine whether the apparent range reduction is real and, if so, what its full extent is and the causes. The recent downgrading of the species' conservation status to Least Concern (BirdLife International 2004) should be reconsidered as a matter of urgency. We also recommend an intensive monitoring programme for the western population.

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